1: Jenness--44-45 (1913-16) 1922 Copper Eskimo
116, 174

"All the groups of the Copper Eskimos maintain a constant intercourse with one another, but naturally the extent of their relations varies inversely with the distance between them. Mr. Stefansson believes that prior to 1830 there was a continuous chain of habitations along the coast from Langton bay to Coronation gulf. It is true that ruins of wood and sod houses have been found at various places between Cape Lyon and Cape Krusenstern, all dating back probably at least a hundred years, but the fewness and rude character of these remains seem to indicate the presence of occasional travelling parties of western natives or temporary settlements that lasted but one or two winters, rather than any permanent habitations. (2) Moreover, while seals are plentiful along the coast, caribou seem to be rather scarce, so that there would be little inducement for natives acquainted with the more bountiful districts east and west of them to fix their homes in this region. It is worth pointing out in this connection that Richardson and Kendall saw no dwellings in 1826, but only a few store-houses built of drift-wood at Young point, where the Eskimos had cached their things for the summer while they themselves wandered inland.

"2. But see Appendix, where the opinion expressed here is modified in the light of more recent information."

The Copper Eskimos have no traditions that would point to their having lived farther west than now. They know, however, that their ancestors up to two generations ago used to meet the western natives in the vicinity of Wise point. These western natives, who came from the country of Avvak (Cape Bathurst), traded mainly for stone lamps and implements of copper, giving in exchange iron knives; it was only rarely that they purchased stone pots, since they had pots of clay that they themselves made. How far back these relations date is uncertain. Higilak, an Akulliakattak woman of about 45 years of age, said that long ago a party of Copper Eskimos travelling west came upon a large settlement of Eskimos on a point near the mouth of a great river that had high cliffs along one bank; before that time they had not known there were people to the west of them. The Copper Eskimos married some of the strangers' women and afterwards frequently went west again to meet them. Once they found them living with Indians, but this was in a different place.

Awallook, an Eskimo who was living on the Richardson river, told Simpson that he had heard there were Eskimos far west who wore labrets, but that he had never seen any himself. (3) We met an old woman of the same name at the west end of Coronation

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"3. Simpson, Discoveries, p. 347."

gulf in the winter of 1914-15. When she was a little girl, she said, strange people came from the westward to Dolphin and Union strait, but they never reached Coronation gulf; they were not white men, but Eskimos like themselves. She had heard that her own people had come to the Rae river district long ago from the west. Another elderly man named Anerak, who belonged to the same group, said that the Copper Eskimos used to meet and trade with the western natives near some high cliffs on the sea-shore (one of the promontories near Wise point). Occasionally some of the western natives would return with them, while a few of the Copper Eskimos would sometimes go west. He himself many years ago made a journey to this place, hoping to meet these people, but became frightened when he found the place deserted and turned back home. [45]

Two western Eskimos, a man and a woman, once stayed with the Copper Eskimos, according to a native from Bathurst inlet. The man soon died, but the woman lived for a great many years among them. A year or two afterwards another western native named Uksokak joined the Copper Eskimos. These three natives had come by sled along the coast in spring, not by boat in summer. Panigyuk, a very old woman who died at Cape Bathurst about 1913, and who had seen the boats of Richardson's party in 1848, was said to be a native of Nagyuktok and to speak the Copper Eskimo dialect. Higilak's grandfather had married a woman named Allikammik who had come east from Avvak; she was one of three western women who had married Copper Eskimos. It was in this

generation, Higilak said, that the intercourse between the two groups came to an end.

Mr. Stefansson attaches much importance to the trade connections between the Cape Bathurst Eskimos and those of Victoria and Banks islands by way of Cape Parry and Nelson head. It was always the western Eskimos, he says, who crossed the strait, and then it was only by sled, late in March or early in April. The Cape Bathurst natives still remembered this trade route, but knew nothing of the one along the coast to Dolphin and Union strait. The Copper Eskimos, on the other hand, had clear recollections of the latter route, but not of the former. From the large number of ruined houses round Franklin bay and Cape Parry it is quite certain that many years ago (just how many we cannot really estimate, but probably not much more than a century) there must have been a considerable population in this region. In spite of this, however, it is hard to believe that they could have had any regular communication with Banks island by sled, for there is a very strong current off Cape Parry, and the sea is sometimes open throughout the entire winter. The Cape Bathurst natives are well aware of this, and moreover they have always been chary of going far out on the ice at any time. While it is not improbable therefore that small parties did cross over to Nelson head on two or three occasions, it is highly unlikely that this could ever have been a regular trade-route. Moreover no traces were found at Nelson head that would indicate visits from western natives, no remains, for example, like the stone graves or houses of wood

and sod that were discovered in Dolphin and Union strait."

2: Stefansson--47
116, 262, 174

(1908-1912) 1914

Copper Eskimo

"The Eskimo of Alaska from Kotzebue Sound along the coast depend to some extent on vegetable foods, not only in summer while these are growing and can be gathered for immediate use, but also in winter when the people draw on stores gathered in summer. The Mackenzie district is as well supplied as some Alaskan localities with edible vegetables, but very little attention is paid, or was, until a few years ago when Alaskan immigrants began to teach them the use of berries, leaves, and roots. The summer hunting districts of the Coronation Gulf Eskimo, too, are rich in vegetable foods, but the knowledge of their use is on an even lower level than in the Mackenzie Delta. That proximity to the vegetable-eating Indians of Alaska and not the richness of any given district determines the amount and variety of vegetables used, is one of the many reasons for thinking that the Arctic coast population did not come to their present home down the Mackenzie or from the Yukon. Had they come from a district rich in vegetables to a district rich in the same vegetables they would not have forgotten their use."

2: Stefansson--59 (1908-1912) 1914 . Copper Eskimo
116, 174

"[JMR: i.e., The Akuliakattagmiut and others kill a few muskrats, but they use neither skins for meat but only use the tails for charms.] This, as well as lack of knowledge of common berries as food, may go to show that the present territory has not long been occupied by these people. Further, had they come to Coronation Gulf either from the south or west they would have brought with them the habit of using these things, and would not have forgotten it while occupying the present territory which, comparatively speaking, abounds in berries and has numbers of muskrats. As to the muskrats, however, the Bear Lake Slaveys say that they, as well as the beaver and the moose are new arrivals north and east of Great Bear Lake. This may explain the Eskimo ignorance of their use."

2: Stefansson--68 (1908-1912) 1914 Copper Eskimo
116, 439, 174

"The lamps are of the type already familiar from Point Barrow. This is to be expected if, as the Mackenzie people say, the Point Barrow people used to buy lamps at Barter Island from the Mackenzie Eskimo who got them from the Baillie Islanders, who in turn got them from farther east. Lamps and pots were formerly costly in the west as compared with other artifacts, but are now cheap on Coronation Gulf, another thing that points to the Gulf as the source of pots, etc., used farther west."

2: Stefansson--99-101 (1908-12) 1914 Copper Eskimo
116, 412, 174

"The two things of perhaps the greatest interest about the knives are: (a) that the knives are always sharpened not only on both sides the blade, but each edge is sharpened from both sides, as white men sharpen a knife, while from the Baillie Islands west to the Yukon mouth, both on the coast and inland, Eskimo sharpen knives of all sizes on one side the edge only, or in the manner in which we sharpen scissors. Coronation Gulf and Victoria Island people sharpen only the [101] crooked knife, scissor fashion. (b) The fidelity with which the shape of the copper knives is copied in the iron knives whenever the character of the material allows fidelity. If the blade as a whole cannot be coerced into shape, the peculiar local type of point will at least be given it; the same point as is found on all their arrows, spears, and lances. This type of point is not familiar to me from farther west, where the blade of any butcher knife is soon filed into the type shown in Fig. 45. It is to be expected that in knives as well as other things closer affinities will be found to the east than to the west, for our discussion goes to show that not only in the recent past, but also in the more distant past, relations with the east have been more continuous and probably more friendly."

"These [MPK: The Copper Eskimos] are the same Eskimos who a few years back suddenly became worldfamous under the name of 'the blond Eskimos'...[74, page 73 omitted] Vilhjálmur Stefánsson maintains that the distance between Greenland and Victoria Land is really so short that there would have been no practical difficulty in the Norsemen's migration to these regions. I can in no way agree with my highly esteemed colleague. The old Norsemen were mariners who penetrated far to the north in their boats, it is true; but they were in no way sledge travellers nor adapted to a winter culture such as that required in these lands. We lose the certain marks of their northern boundary in the rune-stone find at Upernivik, and though this of course does not mean that some hunters may not have forced Melville Bay, and that others may not have gone into Jones Sound, where Sverdrup considered he had found stone erections that resembled eider-duck traps, it has never been definitely proved, and the basis on which we have to build is all too slender. The regions in which the Norsemen lived had a subarctic climate, and there is no record of any kind that Eskimo sledge-driving was adopted by them. With no knowledge of the technique of arctic travelling, the distance between Greenland and Victoria Land grows great, and the fate of the many Northwest Passage expeditions shows better than anything else how impossible it would have been for Norsemen to navigate into these regions. And finally, if an immigration had meant so much that it could leave its mark upon the Eskimo population, there would have had to be more than an isolated ship that was beaten off her course--we must have a bigger immigration, and that can scarcely

have been at all possible. With all due respect to the courage of those old Norsemen and their ability to look after themselves, I do not think it would occur to them to carry wives and children into these parts.

Finally, in addition to these reasons we have the traditions. It would seem incredible that such a great event, even a thousand years later, should not be remembered by a people who so faithfully preserve all their old traditions. In Greenland, for instance, there are many legends of the Norsemen and their wars with the Eskimos. It would be natural to expect that something of the same sort would be the case among the inhabitants of Victoria Land.

And in fact all the anthropological measurements taken do not indicate any new infiltration in the tribe. All vital bodily and facial proportions are pronouncedly Eskimo, and nothing at all hints at any mixture of blood. In reality these blond types are not peculiar to Victoria Land either; on King William Land and Great Fish River, as well as among the Musk Ox people, I found types that [75] had just the same outer peculiarities--the same fair complexion, the reddish or brownish hair, the grey, often almost blue eyes, a surprisingly luxuriant beard--all otherwise unusual among the Eskimos. All these I found among other tribes who had no tradition of any intermingling, and who lived so far away from the Copper Eskimos that influence from these parts cannot be imagined. I am therefore convinced that these special types are due to purely biological conditions that are quite accidental, and defy the setting up of any rule."

6: Roberts and Jenness --13 (1914-1916) 1925 Copper Eskimo
619, 174, 484

"Ten or twelve songs--No. 1 is the best example--are in the nature of travelogues, describing journeys that their composers have made either for trade or to visit friends in other communities. Nos. 2 and 14 are of special interest because they confirm the information derived from other sources, that in the west the Copper Eskimos came into contact with the Cape Bathurst Eskimos of the Mackenzie river delta, obtaining from them knives and wood and ivory, while to the eastward they were acquainted with the Netchilik and Aivilik tribes around the bases of Melville and Boothia peninsulas, the Qairniq Eskimos of the west coast of Hudson bay, and other tribes still more remote."

9: Seltzer--354 (no date) 1933 Copper Eskimo
116, 121, 174

"The science of anthropology, although usually subdivided into its various branches, ethnology, ethnography, somatology and archaeology, is essentially a closely knit and interrelated study. The examination of no single branch alone is adequate if a thorough understanding of a cultural group is to be obtained. It is necessary, in a study of the historical background and culture of a people, that cognizance be taken of all the factors that went into the making of that cultural pattern. It is the complete devotion to all the evidence at our command, --the somatological, the ethnological, the archaeological and the ethnographical--which will reveal to us the true history, the true cultural pattern of a people.

Nowhere is this statement more pertinent than in the question of the origin of the Eskimos. It is essential that we bring to bear all the evidence we have in order to solve this perplexing problem."

9: Seltzer--354-358 (no date) 1933 Copper Eskimo-1-8
116, 144, 174

"Thus far those who have unearthed the archaeological data, those who have determined the ethnological material, those who have studied the geographical distribution of the Eskimo, have failed adequately to bring into relation their results with the available somatological data. In this paper I intend to correlate the physical evidence concerning the Eskimo with the known facts of material culture that have been eluci- [355] dated by such eminent authorities as Boas, Steensby, Rasmussen, Mathiassen, Birket-Smith and Jenness.

Many theories have been postulated for the origin of the Eskimo and the sequence of Eskimo cultures, but the most complete and comprehensive theory has been presented by Birket-Smith. (13) The various cultures in chronological sequence he gives as follows:

13. Birket-Smith, 1928 and 1929.

(1) Proto-Eskimo--a 'circumpolar ice-hunting culture' in the remote past, the Caribou Eskimos west of Hudson Bay being the last survivors.

(2) Palae-Eskimo--the bearers of this culture were once Proto-Eskimo but were the first group to adapt themselves to life at the sea, spreading all over the Arctic.

(3) Thule--corresponds to Steensby's Neo-Eskimo culture, (14) originating in the

14. Steensby, 1910.

west, most probably in Alaska, then spreading eastward to Greenland. The Thulers depended mainly on the hunting of whales.

(4) Eschato-Eskimo--represented by the Central Eskimo cultures. The bearers of this culture have fairly recently migrated north from inland.

In addition to the above we must add the as yet little known 'Bering Sea Culture' discovered in Alaska, which is considered by Jenness (15) to be older than the Thule.

15. Jenness, 1928.

Archaeologists and ethnologists are in complete agreement as to the existence of the Thule and the more recent Eschato-Eskimo cultures. But they disagree as to the Proto- and Palae-Eskimo cultures as expounded by Birket-Smith. For example, Mathiassen (16)

16. Mathiassen, 1930.

cannot find evidence for the presence of an older culture in the central regions than the Thule.

The question of the Proto- and Palae-Eskimos need not concern us at this point, but let us instead examine the somatological evidence for the Thule and Eschato-Eskimo cultures.

The Bearers of the Old Thule Culture

Mathiassen (17) has pointed out the fact that on the basis of various cultural evidences

17. Mathiassen, 1927.

it was apparent that the Thule culture originated in [356] western Alaska and from that focus spread eastwards right to Greenland. What were the physical characteristics of the bearers of this culture was not known, until fortunately, in 1918, Van Valin (18)

18. Hrdlička, 1930.

discovered a group of mounds near Point Barrow, Alaska, which contained a series of skeletal remains associated with artifacts of Thule type. That this culture belonged to the Thule people is a fact that has been adequately and conclusively demonstrated by Mason. (19) And further, that this was a historically ancient site is attested to by Van

19. Mason, 1928.

Valin, who on questioning the present inhabitants of Point Barrow, found that they had

no historical recollection of the existence of any previous group in this region, or that these mounds were actually 'Igloos.'

These important skeletons were measured in 1928 by Hrdlička (20) who came to the

20. Hrdlička, 1930.

conclusion that the bones of the Old Igloo Thulers were the remains of Eskimos whose physical type differed radically from groups now living in Alaska. On the basis of his report, the skeletal remains are distinguished by the great length and extreme narrowness of their skulls, with consequently low cranial indices, and also by their excessively high breadth-height indices. In short, the Old Igloo Thulers were described as a tall statured, dolichocephalic, orthocephalic, akrocephalic, hypsiconch, leptorrhine group.

These skeletons represent an individually characteristic and distinctive type which is clearly differentiated from almost all other Eskimo cranimetric series. They are distinguished from them in possessing the longest skulls, by far the narrowest skulls, the lowest cranial indices, the highest skull vaults, the highest cephalo-facial and breadth-height indices, and one of the tallest statures.

Do any of the existing Eskimo groups resemble this skeletal series by exhibiting similar characteristic features, or has this type entirely disappeared into the existing populations? A survey of the physical characteristics of the existing Eskimo tribes

brings to light the fact that of all the groups, the Mackenzie seem to fit this description best. We have seen, in previous pages, how the measurements and indices of this group stamped them apart from all the rest. These Mackenzie were described as the most Eskimoid of all the Eskimos. There was no group in the material studied that could lay claim to any close relationship with them whatsoever. The Mackenzie Eskimos were distinguished [357] from the other living groups in having the longest heads, the narrowest heads, the lowest cephalic indices, one of the highest cephalo-facial indices, and one of the tallest statures. Thus it may be seen that the Mackenzie Eskimos differ from the other living groups in the same characteristics and in the same direction as do the Old Igloo crania from the other Eskimo skeletal collections.

The fact that these two groups differ markedly from all the other groups in similar measurements and indices, in the same direction, and are both extreme types, leads one to suspect that they are of the same racial stock. Both are very long headed, both are very narrow headed, both have very low cranial indices, very high cephalo-facial indices, and tall statures.

Such close resemblances between two groups cannot be fortuitous, but on the other hand are a cogent argument for the postulation of racial identity, thereby confirming the conclusion that physically the Mackenzie Eskimos are the living descendants of the original bearers of the old Thule culture.

Are there any other Eskimos who resemble the Old Igloo Thulers in physical characteristics? From the geographical distribution of archaeological remains of the Thule type one would expect the Smith Sound, Baffin Land, Labrador and Greenland Eskimos to show close somatological likenesses with the Old Igloo people. Nevertheless, we do not find this condition, for the physical type has been changed, probably as the result of the penetration of newer peoples into these regions and the extinction of the Thulers.

Mason (21) has made the following statement:

> 21. Mason, 1928.
>
> it may now be stated that the bearers of the Thule Culture in Alaska were of a definite physical type and, according to Doctor Hrdlička, this type is identical with that of the present Eskimo of Southern Greenland and Labrador, and different from that of the modern Alaskan Eskimo.

I can find no evidence to substantiate this quotation in its entirety; in fact, all the material that we have, meager though it is, refutes some of these suppositions. The present Labrador Eskimos do not resemble the Old Igloo Thulers. The former have

shorter and wider heads, higher cephalic indices, longer faces, and much lower cephalo-facial indices. Most important of all is the fact that their statures are in no manner alike, the Labrador Eskimo being very short, having a mean [358] stature of about 157 cm., while the Old Igloo Thulers stand about 12.5 cm. taller, with a mean of 169.50 cm.

A study of the anthropometric data on the Greenland Eskimos does reveal some resemblances in physical features with the Thulers. Hrdlička, in 1929, emphasized a close connection between the Old Igloo skeletons and a series of undated crania from Greenland. In facial dimensions there appeared many 'striking similarities.' However, in regard to the proportions of the cranial vault these similarities were not so impressive. The mean difference between the two series for cranial length was 2.8 mm., cranial breadth 3.1 mm., cranial height 0.7 mm., cranial index 2.7, and for the height-breadth index 3.0 index units. These differences although not widely divergent are not small enough to presume physical identity, especially inasmuch as we are dealing with two series of the same racial grouping. Nevertheless, taking all the Greenland evidence as a whole, it may be stated that the Eskimos of that country have a basic strain of Thule blood which has been overlayed to a variable degree by a new infusion of a very short-statured, low-headed group, concerning which more will be said later.

Bessel's (22) measurements of a series of 100 Smith Sound crania would throw

22. Bessel, 1875.

considerable light upon the question of Thule inhabitants in that far north region, if the skulls had been sexed. Unfortunately, the unsexed data cannot be interpreted with any amount of confidence, so that we shall have to wait until this valuable collection is re-examined.

In summary of the existing knowledge concerning the bearers of the Thule Culture, we may say that the Mackenzie Eskimos are their only approximately pure living descendants, although traces of their blood can be found in other parts of the Arctic, particularly as a basic substratum in Greenland."

9: Seltzer--358-362 (no date) 1933 Copper Eskimo-1-6
116, 144, 174

"The present Central Eskimos, extending from Coronation Gulf to Baffin Land and Labrador, are the representatives of the modern Eschato-Eskimo culture. It is a commonly accepted proposition that this culture is later than that of the Thule, and that it appeared in its existing position only after the decline of the Thule Eskimos.

In support of this thesis, Mathiassen, Birket-Smith, Boas, Jenness and others have shown that in comparatively recent times there has been [359] a new advance of inland tribes from the region west of Hudson Bay to the Central Eskimo lands. This migration is supposed to have imposed upon the scattered remnants of the Old Thulers the new Eschato culture. Birket-Smith (23) has proven that the Caribou Eskimo have in historic

23. Birket-Smith, 1929.

times arrived at the Barren Grounds from inland regions, when the Chipewyan Indians retreated to the south. Jenness (24) came to the conclusion that the Copper Eskimos

24. Jenness, 1923 b.

were originally an inland people who have reached their present position within the last few hundred years.

Practically all of these hypotheses are based upon archeological and cultural data. The task for the physical anthropologist is to determine on the basis of somatological evidence, whether associated with this new advance of Eschato Culture, there has been a regular migration of new peoples or just an infiltration of cultural elements.

To Dr. H. L. Shapiro (25) must be given the credit for establishing for the first time

25. Shapiro, 1931.

a physical relationship between an interior Indian tribe and certain Eskimo groups. He sees close resemblances in physical features between the Chipewyan Indians on the one hand, and the Smith Sound, Coronation Gulf, and Seward Peninsula Eskimos on the other. In conclusion, Shaprio postulates that these Eskimos 'are derived from an Indian stock which migrated northward to the coast and then moved northeastward to Smith Sound and westward to Seward Peninsula.'

In Table 30, I have contrasted the pure Chipewyan Indian series measured by Grant with several Eskimo groups. An examination of the measurements and indices supports Shapiro's contention of a close physical relationship between the Chipewyan Indians and Seward Peninsula Eskimos, and, in my opinion, a more minute study would extend this relationship to include several other western Alaskan coast Eskimos, the Kotzebue Sound, St. Lawrence Island and Southwest Alaskans.

9: Seltzer--358-362 (no date) 1933 Copper Eskimo-3
116, 144, 174

We can hardly question the striking likeness the Chipewyan Indians show with the Copper Eskimos. Yet, I feel that some distinction should be made between the Copper Eskimos of Coronation Gulf and those of Victoria Island. From the limited measurements we have, there is no doubt that the Victoria Island group is physically almost inseparable from the pure Chipewyan, the average differences between the means being only 0.94. On the other hand, the Coronation Gulf Eskimos [p. 360 contains a chart] [361] measured by Stefansson (26) and Jenness vary considerably from the Chipewyan,

26. This paper.

with average differences for the Stefansson series of 1.90 and 2.24 for those of Jenness. (27)

27. In comparing my Coronation Gulf Eskimos with those of Jenness it should be noted that under this heading Jenness has included 7 individuals from Prince Albert Sound and 34 from the southwest corner of Victoria Island, so that exactly half of Jenness' Coronation Gulf Eskimos would be according to my classification Victoria Islanders.

The Coronation Gulf and Victoria Island Eskimos are fundamentally one and the same

group of people with more or less identical culture, therefore, it is most probable that this physical difference between them can be accounted for on the basis of the greater assimilation by the Coronation Gulfers of a different racial strain. I maintain that this foreign blood was that of the Old Thulers.

It seems clear that when the Coronation Gulf Eskimos arrived at their present geographical position, they found some scattered remnants of the bearers of the Old Thule culture and it was with these Eskimos that they mixed. Although the Thulers were in all likelihood not very numerous, enough were absorbed to cause a change in the physical type of the invading group. The Victoria Island Eskimos retained more of their original physical characteristics, as shown by their shorter and wider heads and higher cephalic indices, because on entering their district they did not encounter as many of the older Thule inhabitants as did their more southern relatives. This theory is substantiated by the fact that archeologists have found more abundant Thule remains in the Coronation Gulf region than along the shores of Prince Albert Sound and Minto Inlet in Victoria Island.

In respect to the Smith Sound-Chipewyan relationship, the situation is not very clear. We are faced with an obstacle of generalizing from a series of 8 individuals. The average difference between their means has been calculated to be 2.29. This is not a small average difference, but still not excessively large. The difficulty arises in reconciling the exceedingly small stature of the Smith Sound Eskimos (157.4 cm.)

with the much taller Chipewyans who have a mean of 166.4 cm. This great stature difference of 9 cm., in my opinion, is sufficient grounds for calling in question the Chipewyan origin of the Smith Sound Eskimo.

On the other hand, it may be possible that the physical status of the Smith Sound group revolves about the historical migration of some [362] Pond's Inlet Eskimos into Smith Sound. The result of this new element was that the people measured by Steensby were a mixture of the indigenous population and the immigrants from the southwest.

Steensby (28) in describing these people writes: 'Those I met were on the whole small,

28. Steensby, 1910.

but there are not a few in the tribe who are above the average height. It is said that those who are descended from the Pond's Inlet Eskimos belong to the tallest in the tribe.'

This goes to prove that although the invaders were few in number, they undoubtedly altered to some extent the physical constitution of the residing group. Who the indigenous population of Smith Sound were, is a question which I shall discuss soon. Let it suffice for the present to state that unquestionably they were of very small stature.

To summarize the influence of the Athapaskans of Chipewyan stock we may conclude that:

9: Seltzer--358-362 (no date) 1933 Copper Eskimo-6
116, 144, 174

(1) The present inhabitants of the western coast of Alaska as far north as Point Hope, are the descendants of an invasion of people resembling the Athapaskans of Chipewyan stock. In this group we have the Eskimos from Kotzebue Sound, Seward Peninsula, St. Lawrence Island and Southwest Alaska.

(2) The Copper Eskimos are also related to the Athapaskan Chipewyans. The Coronation Gulfers are a mixture of the new invaders and the Old Thulers who still survived in that locality, while the Victoria Islanders retained their purity because of their being more or less out of the range of the Thule culture peoples.

(3) The Smith Sound Eskimos may be said to be very indirectly related to the Athapaskan Chipewyans, and that only if we infer that the Pond's Inlet immigrants were of Chipewyan-Eschato origin."

9: Seltzer--360
116, 141, 144, 174

(no date) 1933

Copper Eskimo

"TABLE 30

Comparison Between Chipewyan Males and Western and Central Eskimos

	CHIPEWYAN PURE	SOUTHWEST ALASKA	ST. LAWRENCE ISLAND	SEWARD PENINSULA	KOTZEBUE SOUND	VICTORIA ISLAND	CORONATION GULF	CORONATION GULF	SMITH SOUND
No.	(44)	(61)	(63)	(40)	(30)	(30)	(65)	(82)	(8)
Measurements	Grant	Hrdlicka	Hrdlicka	Shapiro	Author	Author	Author	Jenness	Steensby
Head Length	193.5	192.9	193.3	196.3	192.50	194.13	195.71	195.9	196.25
Head Breadth	153.7	155.6	154.0	152.2	151.60	151.83	151.09	151.8	152.75
Cephalic Index	79.3	80.7	79.7	77.98	78.80	78.30	77.26	77.6	78.06
Face Height	125.3	126.7	126.8	126.9	127.73	125.30	127.72	126.9	125.38
Face Breadth	149.6	149.5	147.3	149.3	148.37	147.80	147.05	145.7	147.75
Facial Index	83.8	84.9	86.7	84.92	86.10	84.83	86.94	87.0	85.29
Cephalo-Facial Index	97.6	96.1	95.6	98.15	97.90	97.47	97.29	96.0	96.58
Stature	166.4	162.4	163.3	165.4	.....	.....	.....	164.8	157.4
Differences									
Head Length	193.5	—0.6	—0.2	1.8	—1.00	0.63	2.21	2.4	2.75
Head Breadth	153.7	1.9	0.3	—1.5	—2.10	—1.87	—1.61	—1.9	—0.95
Cephalic Index	79.3	1.4	0.4	—1.34	—0.70	—1.00	—2.04	—1.7	—1.24
Face Height	125.3	1.4	1.5	1.6	2.43	—0.10	2.42	1.6	—0.02
Face Breadth	149.6	—0.1	—2.3	—0.3	—1.23	—1.80	—2.55	—3.9	—1.85
Facial Index	83.8	1.1	2.9	1.12	2.30	1.03	3.14	3.2	1.49
Cephalo-Facial Index	97.6	—1.5	—2.0	0.55	0.30	—0.13	—0.31	—1.6	—1.04
Stature	166.4	—4.0	—3.1	—1.0	....	....	....	—1.6	9.00
Average Differences		1.50	1.59	1.15	1.44	0.94	1.90	2.24	2.29"

9: Seltzer--362-367 (no date) 1933 Copper Eskimo-1-7
116, 144, 174

"Another great division of the Eschato-Eskimo cultural advance is that participated in by the Central Eskimos in the region of Hudson Bay, including the intensively studied Caribou Eskimo, Netsilik and Iglulik groups.

In reference to the historical occupation by the Caribou Eskimo of their present territory, Birket-Smith (29) relates how the comparatively recent expansion of the

29. Birket-Smith, 1929.

Chipewyan Indians into the southern part of [363] the Barren Grounds exterminated 'an old offshoot of the Old Thule Culture.' The stimulus to this advance of the Athapaskans he charges to the introduction of firearms. The same authority also maintains that when the Chipewyans retired to the timber line, on the cessation of the pressure of the Crees from the south, the Caribou Eskimo took possession of the Barren Lands now left empty by the Chipewyans.

In addition, on purely cultural evidence, Birket-Smith (29) has propounded the theory that the present Caribou Eskimos are the last survivors of the Proto-Eskimo, a part of whom ventured to the coast in the region of Coronation Gulf and Bathurst Inlet, developed the Palae-Eskimo culture, and then spread eastward and westward along the coast.

There are two possibilities: (1) either we must accept Birket-Smith's point of view

that the Caribou Eskimos are a very ancient group of survivors of the Proto-Eskimos, (2) or the Caribou Eskimos are not survivors of the Proto-Eskimo but are a new inland group which has come down to the coast as part of the late Eschato advance.

But before we consider this question let us determine the physical status of the Caribou Eskimo and demonstrate his affiliations.

In any event, whether or not Birket-Smith is right, one would expect to find on the basis of their inland origin, that the Hudson Bay Eskimos resemble an Indian stock physically. Fortunately, in the preliminary reports of the Fifth Thule Expedition. (30)

30. Birket-Smith, 1925.

there has been published a summary of a few of the measurements taken on Hudson Bay Eskimos. In Table 31 I have contrasted this series with a group of Algonkian Cree Indians measured by Grant at Fort Chipewyan.

The results are truly startling, for we do not find any large variations between any of the measurements or indices. Disregarding signs, the average difference is but 0.59. Both the Cree and the Hudson Bay Eskimos are characterized by mesocephaly tending towards dolichocephaly, fairly short and narrow faces and short stature. We cannot escape the conclusion that the Cree Indians and the Hudson Bay Eskimos are physically identical.

In addition, from the cultural point of view, the relation of the Caribou Eskimos to an Indian stock has been fully discussed by Birket-Smith, who derives most of the Indian cultural influences from the Algonkian Cree Indians. He says: (31)

31. Birket-Smith, 1929.

> [364] In now concluding the reference to the Indian elements in the culture of the Caribou Eskimos, there is reason for emphasizing once more, that in those cases where it was possible to trace them back to a particular tribe, it was to the Cree and not to the Chipewyan. (32) This quite conforms to the historical facts, as the

32. His italics, not mine.

> connection with the latter is scarcely 200 years old, whereas the intercourse with the Cree, now practically at an end, is much older.

Thus on the basis of both physical and cultural grounds, the Caribou Eskimos are unquestionably related to the Cree Indians.

The Caribou or Hudson Bay Eskimos do not possess, as regards physical make-up particular features which distinguish them from all of the other Eskimos and mark them out as being a separate and distinct type. On the contrary, they are but a single group of a certain type of Eskimo that is characterized by short stature, dolichocephaly bordering on mesocephaly, and fairly short and narrow faces. It is interesting to note at this point that they differ from those Eskimos related to the Athapaskan Chipewyans in having a much shorter stature, narrower head, slightly shorter heads, much narrower faces as well as shorter faces.

A survey of the existing Eskimo tribes shows that this type to which the Caribou Eskimos belong is also exemplified by the Labrador and Angmassalik Eskimos of East Greenland. In Table 32 I have tabulated the measurements and indices for these groups, and, although the Angmassalik series is not complete, lacking face height and facial index, it can be seen that they exhibit such close similarities to the others as to make the Hudson Bay, Labrador and Angmassalik Eskimos divisions of the same racial type.

Furthermore, an examination of the crania and long bones of the eastern Eskimo leads me to believe that before the inception of foreign white influence, that part of the Arctic from Hudson Bay to the east coast of Greenland was populated by this short-statured, almost mesocephalic, narrow-faced group.

We must not lose sight of the fact that this type was not the original Eskimo in these parts, but came later than the Thulers. In many localities these invaders encountered

scattered bands of the Old Thulers, some of whom were exterminated and others absorbed. This succession of the Thulers by the short-statured type is substantiated by numerous Tunit or Tornit legends, (33) which relate how the ancestors of the present

33. Hawkes, 1916.

[p. 365 contains a chart] [366] central and eastern Eskimos met and lived with a very tall statured Eskimo (Thulers), who were finally assimilated or destroyed.

I have shown, on the basis of somatological criteria, that the Hudson Bay Eskimos are undeniably related to a particular group of Cree Indians. I have also pointed out how the Hudson Bay, Labrador and Angmassalik Eskimos all belong to a single physical type. It follows, therefore, that this short-statured type of which the Hudson Bay tribes are members, is also closely affiliated with the Cree.

To emphasize this relationship, in Table 32, I have computed the average differences between the measurements and indices of the groups in question and the Algonkian Cree Indians studied at Fort Chipewyan. These differences are really so small as to warrant the presumption of close affinities with the Cree, and the conclusion that the short-statured dolichocephalic (almost mesocephalic) type, which spread over the whole eastern Arctic, was originally derived from an Indian stock resembling the Algonkian Cree.

If we now consider the question of the aboriginal population of Smith Sound we find more evidence available. From Steensby's data and from a study of the raw measurements of Bessel's unsexed crania, it seems most likely, that before the arrival of the Pond's Inlet immigrants the Smith Sounders were also of this short-statured dolicho type described above. The effect of the Pond's Inlet Eskimos was to increase the cranial and facial diameters of the original Smith Sound group. However, we cannot be absolutely certain of these facts until Bessel's series is sexed and re-examined.

In Greenland today, both the east and west coasts are racially so mixed that very few pure Eskimos are to be found. There is no doubt in my mind that the bearers of the Thule Culture arrived here, but not in any great numbers. The Eskimos who have maintained their purity up to the present, are usually of the short-statured dolicho group. Occasionally, we find among them a few tall individuals, who are probably descendants of the Old Thulers. We must also remember that Danish, Norwegian, German and other mixtures have been going on for many years. This white blood is altering the physical characteristics of the Greenland Eskimos who are beginning to evince taller statures, broader heads, much narrower and longer faces, with consequently low cephalo-facial indices.

If we return to the question of the Proto-Eskimo origin of the Caribou Eskimos as expounded by Birket-Smith, we find that on the [367] basis of physical evidence the

9: Seltzer--362-367 (no date) 1933 Copper Eskimo-7
116, 144, 174

Caribou Eskimos are related to the Algonkians of Cree stock. It has also been demonstrated that the Labrador and Angmassalik tribes are also affiliated with the same Indian group. It follows, therefore, that if we assume the Caribou Eskimo to be of Proto-Eskimo origin, then the Labrador and Angmassalik groups must have originated from the same stock. But since it is a well established fact that archaeologically the Thule Culture is the oldest in the eastern and central regions, the other cultures being superimposed upon it, then it would seem more probable that the Caribou Eskimo are not survivors of the Proto-Eskimo but rather a division of the late advance of the Eschato culture."

9: Seltzer--365
116, 141, 144, 174

(no date) 1933

Copper Eskimo

"TABLE 31

Comparison Between Means of Cree Indians at Fort Chipewyan and Hudson Bay Males

	CREE (Grant)	HUDSON BAY (Birket-Smith)	Diff.	
Head Length.....	193.2	193.7	0.5	
Head Breadth.....	150.0	149.7	—0.3	
Cephalic Index.....	77.6	77.3	—0.3	
Face Height.....	124.6	123.5	—1.1	Average
Face Breadth.....	144.6	143.4	—1.2	difference
Facial Index.....	86.1	86.0	—0.1	0.59
Cephalo-Facial Index....	96.6	95.8	—0.8	
Stature.....	161.0	160.6	— 0.4"	

9: Seltzer--367-368 (no date) 1933 Copper Eskimo-1-2
116, 174

"Throughout this discussion I have been fully aware of the fact that in certain places, the available material was of a scanty and meagre nature. Nevertheless, important evidence has appeared, which throws light upon the question of the immediate origin of the Eskimo and has produced definite indications as to the association of physical types with cultural radiations. Most anthropologists agree with Dr. Hrdlička on the problem of the ultimate origin of the Eskimo placing the genesis of this group somewhere in the Asiatic continent where it became differentiated as a limb of the great Mongoloid division of mankind. However, it is the question of the local or immediate home of the Eskimo which has raised tremendous controversy and which has produced two schools of thought. The first group would place the immediate origin of the Eskimo in the region of Alaska, from which point they are supposed to have spread eastwards along the Arctic coasts into Greenland. The second school contends that the immediate origin of the Eskimo should be placed somewhere in the Central Hudson Bay region, originally inland, but finally following the rivers to the coast and then migrating westward to Alaska and eastward to Labrador and Greenland.

According to the results of this monograph, both of these previously irreconcilable views may now be brought en rapport to form a new and complete picture as follows:

Two distinct cultures, the Thule originating from the Alaskan region, and the Eschato from the Central region, one superimposed upon the other, and identified with distinct

physical types may be clearly discerned from the mass of data. [368]

It appears that the earlier Thule Culture was carried by a very tall, extremely dolichocephalic, hypsicephalic Eskimo group whose home was somewhere in the west. These people, with whaling as their main cultural background, spread over the whole Arctic from Alaska to Greenland. The Mackenzie Eskimo, east of the Mackenzie River delta, represent their only approximately pure living descendants."

9: Seltzer--368 (no date) 1933 Copper Eskimo
116, 144, 174

"At a much later period [MPK: following the Thule Culture] allied with the Eschato Culture advance, there was a sudden Indianoid expansion from central Canada from about the region of Lake Athabaska. From this focus these migrations into the Eskimo regions, replacing and superimposing upon the earlier Thulers, emanated from two distinct sources. One group was derived from people of Athapaskan stock as represented by the modern Chipewyans, characterized by moderate height, mesocephaly, wide heads and fairly long and broad faces; the other was of Algonkian origin, as represented by the Cree, showing very short stature, dolichocephaly bordering on mesocephaly, quite short and narrow faces, with low cephalo-facial indices.

The 'Athapaskan Chipewyan' group traveled to the north and west, the western division occupying the region of Kotzebue Sound, Seward Peninsula and St. Lawrence Island, while the northern division, represented by the Copper Eskimos, migrated to the region of Coronation Gulf and Victoria Island.

The 'Algonkian Cree' stock sent their numbers to the north and east in successive waves of migration. The first group occupied the whole territory of Hudson Bay, Labrador, Baffin Land and Greenland, supplanting still existing bands of Old Thulers. The second group, represented by the present Caribou Eskimo, at a later period invaded the Barren Grounds where they are to be found today."

"To understand the historic possibility of European contact with the central Eskimo we must go back a thousand years in the History of the Scandinavian countries. Shortly before 870 A. D. Iceland was discovered by Norwegian navigators, and a few years earlier some Irish monks had occupied a small island just south of Iceland. The rapid settlement of Iceland was favored by the conditions of unrest in Scandinavia, connected with the wars of conquest waged by Harald, who was making himself the first king of united Norway, and driving out the petty kings who formerly had been independent rulers of separate territories, and who now generally preferred exile to allegiance to Harald. As is well known, some of these went to France, where they became the Normans who conquered England. Others went directly to England, and established there the kingdom of Northumbria. War expeditions on a smaller scale got them footing in other parts of the British Isles, in the Orkneys, the Shetland, and the Faroe Islands. But perhaps the largest number of all were those who colonized Iceland, where the first settlement is considered to have been made in 872. Within a century from that time the entire coast line was peopled with seafaring men who spent their summers in piracy along the various shores of northern Europe, and returned to Iceland in the fall to spend the winter in the enjoyment of the fruits of their plundering.

Early in the last quarter of the tenth century a man named Eric [196] the Red was outlawed from Norway for murder. He came to Iceland and settled there, but the habit of man-killing was too strong upon him, and in 982 he was outlawed from Iceland for a

period of three years. At that time there was current in Iceland a belief that a certain sailor named Gunnbjorn, of whom little is otherwise known, had sailed to the west of Iceland, and seen there some reefs, on which he had not landed. The knowledge of this tradition, combined no doubt with the fear of returning to the Scandinavian countries where he would have been an unwelcome visitor, caused Eric at the beginning of his exile to sail west, to become the discoverer of Greenland, whose glacier-covered mountains rise from the sea before the peaks of Iceland disappear in the east. Like the navigators of the present day, Eric found the east coast blockaded with floes, so he sailed to the south around Cape Farewell, and landed upon the more inviting southwest coast, where he spent the three years of his exile. On his return to Iceland he gave a favorable account of the country, which he had named 'Greenland,' for, as the saga naïvely says, 'he thought people would all the more desire to settle the country if it had a fair name.' Eric advertised his discoveries with such success that in 985 a fleet of twenty-five vessels sailed from the west coast of Iceland for Greenland. Some of these were shipwrecked, some turned back, but fourteen reached their destination. There is no census of the original settlers, but it is probable that each ship carried not less than fifty people, and the number can therefore be safely put at from six hundred to seven hundred. Each ship carried all the household goods of the owners, including horses, cattle, and sheep, and a flourishing farming community soon sprang up.

One of the important results of the settlement of Greenland was the discovery of the mainland of North America. Leifr Eiriksson, the son of Eric the Red, sailed in the year 1000 from Norway to visit his father in Greenland. This was in the days before exact navigation, and in trying to find a direct route he sailed too far south, missed the point of Greenland, and saw land for the first time in a much lower latitude than he had expected, where natural conditions showed him at once that he had struck another coast than that of Greenland. This was the first fully authenticated discovery of [197] America and the story of his epoch-making voyage is therefore so well known that we shall not dwell upon it here. He returned the same summer to Greenland, and told the story of his discovery, which then spread to Iceland and the rest of Europe, and found lodgment not only in the minds of men, but also in documents in various parts of Europe.

About the year 1000 Christianity was brought to Greenland, and from that time on we find records of the colony, not only in the sagas and annals of Iceland, but also in the archives of the Holy See in Rome. By the twelfth century there were in Greenland a bishopric, two monasteries, a nunnery, and fourteen churches. The colony was in a flourishing condition, and cannot have had a population of less than three thousand; the actual number may have been considerably more than that. They regularly paid their tithes to Rome, and we have papal records of the fact that in 1347 they even contributed in walrus ivory to the Crusades and to a Norwegian war expedition against Russia. The trade of the country was mostly with Norway, and besides ivory their exports were hides

and thongs, oil, butter, wool, and other products of the farm. At first the Greenlanders used to sail their own vessels, and we have records of their making triangular voyages, going first from Greenland to the mainland of America to take on cargoes of timber, taking these thence to Iceland to sell them for house-building purposes, taking Icelandic wares in exchange, and returning with them to Greenland. Later on, however, bad times came upon the colony through establishment of a trade monopoly by the Norwegian king, who in 1294 sold to a single firm of merchants in Bergen the exclusive right of trading with Greenland, and made it a statutory crime for the Greenlanders to build or sail their own ships, or to deal with any one not connected with this firm. In consequence the trade with Europe, which had been fairly brisk up to this time, gradually dwindled so that toward the end of the fourteenth century it was often several years between the sailings of ships to Greenland.

When the Scandinavians first settled southwest Greenland they found there house ruins and other remains which indicated that Eskimo had visited the country before its settlement. For some reason, however, these Eskimo had left the country again, and the [198] Scandinavians came in no contact with them during the early period of the colony. About the middle of the thirteenth century, however, they began to crowd down upon the colony from the north, apparently having come from the American continent by way of the Arctic islands, crossing thence to Greenland by way of Smith Sound. We have several accounts of the earlier fights between the Scandinavian and the Eskimo, and we know

definitely that shortly after the year 1341 the most northerly Scandinavian colony was destroyed. The last reliable accounts of the southern portion of the Scandinavian settlement date from the first years of the fifteenth century, although more doubtful accounts take this story nearly down to the year 1500. At the time that Columbus sailed for America a bishop appointed by the Pope still had the nominal office of 'Bishop of Greenland,' although he never left Europe to assume his actual duties in the West.

It was a combination of circumstances that finally cut off all communication between Bergen and Greenland. The paralysis that fell upon Europe as a consequence of the Black Death was one of the influences; raids upon Bergen by ships of the Hanseatic League was another. When communications with Greenland were resumed, Norway had lost her lead in maritime affairs, and it was the sailors of England who rediscovered the country. In 1585 John Davis sailed up into the strait which bears his name, and the navigators that followed him brought to the attention of Europe the Eskimo, who were by that time the sole inhabitants of the districts in which the Scandinavian colony had previously flourished. It cannot have been much more than a hundred years from the disappearance of the Scandinavians from Greenland to the coming of Davis, and it is certain that had the people of that time taken the scientific interest that modern explorers do in the things they saw and heard, they could have cleared up the mystery which still envelops the fate of the colony. Historians have always considered it probable that it was no war of extermination that ended the Norse occupation, but that one of two

things happened: either the remnants of Europeans may have intermarried with the Eskimo in Greenland, or, more probably, they may have migrated westward to the portions of America so well known to their forefathers. In [199] America they either perished through starvation or by war, or became amalgamated with the population which they found in the country.

Shortly after the announcement last fall of our discovery of European-like people in southwest Victoria Island, General A. W. Greely undertook a survey of the entire mass of Arctic literature with the view of finding references to previous discoveries of a similar nature by the early voyagers. His thorough familiarity with the printed sources, and the possession of manuscript documents of great value, enabled him to bring together many things which had previously escaped notice, but which established a fairly complete historical chain of references to 'Blond Eskimo' from the time of Davis to the present. The first, and perhaps the most interesting, reference is that to Nicolas Tunes, captain of a fishing vessel, who in 1656 sailed up into Davis Strait to 72° north latitude. He found the district which he visited occupied by two different sorts of people. He saw one kind which he described as very tall, well built, of a rather fair complexion, swift on foot; the other was much smaller, with an olive complexion, and short, thick legs. The latter of these types is easily recognized as the Eskimo, while the former would fit well a people of mixed Scandinavian and Eskimo descent, in whom the Scandinavian was the predominating element. Coming to more recent times and to more

westerly districts, we find on the road which any migrating people must have travelled between Greenland and Victoria Island numerous references by explorers at various times to people whom they did not consider to be typical Eskimo. Sir John Franklin, who was the first of the explorers to approach the region in which the European-like Eskimo now live, came in contact in 1824 with just one Eskimo, a decrepit old man, abandoned by his companions, who had fled at the approach of the exploring party. Of him Franklin says:

'The countenance [of this man] was oval, with a sufficiently prominent nose, and had nothing very different from a European face, except in the smallness of his eyes and, perhaps, in the narrowness of his forehead. His complexion was very fresh and red, and he had a longer beard that I have hitherto seen on any of the aborigines of America.' [200]

In the same district in 1837 Dease and Simpson came in contact with a small party of Eskimo, one of whom they described as of 'a distinguished appearance,' and as looking 'much like a Scandinavian.'

There is no reason for insisting now or ever that the 'Blond Eskimo' of Victoria Island are descended from the Scandinavian colonists of Greenland, but looking at it historically or geographically there is no reason why they might not be. We have seen that the Scandinavians flourished for centuries on the west coast of Greenland. We know that at the time when communications between Europe and Greenland were cut off there were still large numbers of them living in Greenland in proximity to the Eskimo. We know that the habits of the Eskimo are such, as exemplified in their relations with the

American Indian and the white man in recent times, that they are inclined to mix with any race with which they come in contact. Greenland is not far from Victoria Island. If there were any reason for doing so, I could go by sled in less than twenty-four months from the southwest corner of Victoria Island, where the 'Blond Eskimo' now live, by way of Smith Sound, to the districts in Greenland which the Scandinavians inhabited, or by crossing from Greenland in a boat in summer I could go in one year thence by sled west to Victoria Island. As a matter of fact, the Eskimo who now winter on the ice west of Victoria Island start thence in March, and by August meet for trading purposes the Eskimo of the Hudson Bay, just above Chesterfield Inlet. There is, then, no more reason geographically than there is historically to suppose any barrier that could have kept the Scandinavians from moving west to Victoria Island had they wanted to.

If the reason that the Victoria Island Eskimo are European-like is that they are of European blood, then the Scandinavian colony in Greenland furnishes not only an explanation, but the only explanation. It has been suggested in print that there may be some connection between these blond tribes and the English explorers of the Arctic Islands. A sufficient lack of information might make this supposition seem probable. It is true, however, that the literature of the Franklin expeditions not only is fairly complete, but also that the Eskimo themselves still remember such contact as they had [20] with the explorers. Of all tribes visited by us only three were shown by our literature to have come in contact with the explorers, and in all these tribes I found men still living who

remembered the incident. The extracts already quoted show that when the first Englishmen came in contact with these people, they found already among them exactly the same blond traits that we find to-day, and secondly, the amount of contact was so slight that no physical change of whole tribes could have been produced. Had Franklin's entire ship's company of two hundred and thirty men survived in Victoria Island, and had they all married among and lived among the Eskimo, their descendants could not have been numerous enough to give us the condition we find there to-day. We have records, however, of the actual death of more than half of Franklin's men, and we feel certain that they had all perished before the year 1860 at the latest.

It is over a hundred years since the Eskimo of Western Alaska came in contact with the early Russians. For a half a century they have been in contact with the American whaling fleet, numbering at times as many as a thousand men. A good many of these whalers have married Eskimo women and have settled in the country, and their grandchildren are already growing into man's estate; yet all this mixing of races had produced in northern Alaska no such blond type as we find in Victoria Island. There are living in northern Alaska and the Mackenzie district perhaps a hundred individuals of mixed European and Eskimo descent. If this hundred were gathered together in one place, it would be found that many of them could not be distinguished offhand from full-blooded Eskimo, and the group as a whole would by no means present north-European an

appearance as would any of the three tribes in southwest Victoria Island. And then it is to be noted that if recent admixture of European blood were the cause of the blondness of the Victoria Island Eskimo, you would expect to find more blondness the farther east you go, because the European contact would have to be supposed to have come from the direction of Hudson Bay. The fact is, however, that the blond type is most pronounced farthest west, and gradually fades the farther east you go toward Hudson Bay. I have not myself seen the Eskimo of Hudson Bay, who have for more than a century been in contact with the Scotch and American whalers; but Captain [202] George Comer, of East Haddam, Connecticut, who has had dealings with them continuously for more than a quarter of a century, has told me that such European-like appearance of the people as I have described for Victoria Island and as my photographs show is quite beyond anything he has seen before even in those tribes which have been most intimately connected with the whalers.

As for the contact of the Victoria Island Eskimo with the American whalers, there is little to be said. Only one out of the thirteen tribes visited by my party had ever been seen by whalers, and they were first seen by the schooner Olga in 1906, when she wintered behind Bell Island near the southwest corner of Victoria Island. They were re-visited by the Olga in 1908, but by no other ship, and the total contact of the

Olga's crew with the people did not amount to a whole week of continuous association.

Apart from the historical explanation, there are, of course, purely biological ones. It is possible that for some so-called 'accidental' reason blond individuals may have been born from time to time in the past from parents of pure Eskimo blood, and that these may have perpetuated themselves. As to supposing that it is the climate that has made the Victoria Island Eskimo blond, the theory would be hardly tenable, for they live on the same food and under the same climatic conditions as do the Eskimo east of them and west of them, none of whom show the same European-like traits."

11: Stefansson--332 (1908-1912) 1913 Copper Eskimo
116, 174

"She had seen the first fish-net when at the age of eight or ten years she moved with her parents to the Baillie Islands. This was at a time, she told us, when the people of Langton Bay had for several years suffered from scarcity of food, and the community to which she belonged had divided up, some moving east along the coast while she and her people moved west. Since then, she said, the people who went east have never returned or been heard from. This is probably an accurate, truthful account of the breaking up of the continuous chain of habitation that once stretched eastward along the coast to Coronation Gulf and of which we had found evidences everywhere along that coast in the shape of house ruins and graves. In ancient times it had been in a way necessary that people should occupy the whole coast for the purpose of trading, bringing the valuable stone lamps and stone pots and copper implements from the east and (in later days at least, and possibly even long ago) receiving from the west iron and other white men's or Asiatic wares that came by prehistoric trade routes across Bering Straits and eastward along the coast."

15: Jenness--546 (No date) 1923 Copper Eskimo
116, 174

"Language, traditions, and customs, then, all point to the Copper Eskimos being merely a subgroup of the Eskimos of Hudson Bay. They must therefore be comparatively recent immigrants into the Coronation Gulf region, not descendants of the old whale-hunting population that has left its remains along the coast; for it would be highly unreasonable to suppose that this old population in the course of three or four centuries cast off all the most distinctive features of its culture and took on those of the eastern natives; for example that it not only dropped whale hunting in umiaks and seal hunting in kayaks, abandoned the building of wood and sod huts, and lost the art of making pottery, but also changed its style of tent and altered the kayak from the short, rather broad, sea-going type such as persists today in the Mackenzie region to the long, narrow river type that is characteristic of the Netchilik Eskimos and the tribes inland from Hudson Bay. It is not improbable that some of the old inhabitants survived and blended with the immigrants, but the predominantly eastern character of the modern culture in this area shows conclusively that their influence must have been very slight."

15: Jenness--547-548 (No date) 1923 Copper Eskimo
116, 174, 325

"ORIGIN OF THE COPPER CULTURE

Now that we have reached the conclusion that the present Copper Eskimos represent, for the most part at least, an immigrant people from the eastward, a second problem comes up for our consideration. Copper was extensively used in this northern area both by Indians and Eskimos. Did each group acquire its knowledge independently; or did one of them, and which one, learn the use of copper from the other?

Let us examine first the evidence from Eskimo sources. A full copper culture--a culture, that is, where copper replaces stone in all the cutting implements--appears only in the region around Coronation Gulf, where there are large deposits of free native copper. The metal was well known to the Eskimos on the shores of Hudson Bay during the last two to three centuries, but from their own statements it is clear that they obtained their supply from Coronation Gulf. Copper has not been found to my knowledge in the older ruins of northern Alaska and the Mackenzie delta. A little drifted in at a later date; but this, like the soapstone lamps and pots, was derived from trade with the Copper Eskimos. At first sight, therefore, it would appear that the only knowledge of copper the Eskimos possessed came from the deposits in the Coronation Gulf area. Now the old wood and sod houses in this region, which are probably not more than five or six hundred years old, reveal a stone-age culture; copper either does not appear at all or is found in very sparing quantities. Consequently the copper culture among the Eskimos must be of comparatively recent growth, so recent indeed that it did not have

time to spread far from its home before Europeans appeared on the scene.

We can glean a little more information on the subject from the journal of Samuel Hearne, who made a journey to the mouth of the Coppermine River with a band of Chipewyan Indians in 1771. At Bloody Fall, near the mouth of the Coppermine, his Indians murdered five Eskimo families. Hearne's description of the tools and weapons these Eskimos possessed shows that, with one exception, they did not differ from those in use up to the beginning of the present century. This one exception, however, is all-important. He says: 'Their arrows are either shod with a triangular piece of black stone, like slate, or a piece of copper; but most commonly the former.' (4) Now a century later the use of slate for arrowheads, or for any tools or wea- [548] pons, had virtually ceased. No mention is made of it by the explorers of the nineteenth century, although they frequently mention copper arrowheads. One arrowhead tipped with stone (slate?) was obtained by Mr. Stefansson in 1911--the only one, I believe, that has been reported since the days of Hearne. Slate points are still found occasionally on the surface of the ground, but the use of them in 1914 was traditional only, and the method

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"4. Samuel Hearne: A Journey from Prince of Wales's Fort in Hudson's Bay to the Northern Ocean in the Years 1769, 1770, 1771, and 1772, new edit., edited by J. B. Tyrrell, The Champlain Society, Toronto, 1911, p. 189."

of manufacture was not clearly remembered. It would seem therefore that the Copper Eskimos had passed out of the stone age not so very long before Hearne's day, since they still retained the use of slate in at least one of their weapons, and that a very important one.

The linguistic evidence might seem to run counter to this conclusion. The Eskimos have almost exactly the same word for copper from Greenland to northern Alaska, and even in northeastern Asia. In Greenland it is kangnusak, kangusak, or kannussaq (according to dialect); from Labrador to northern Alaska it is kannuyaq; and in northeastern Asia it is given as kaniuyak. There are some obscure features about this word which I do not understand, but the changes that it has undergone in Greenland would indicate that it was present in the eastern dialects before the great Eskimo migrations to Greenland between the eleventh and the fourteenth centuries. But the fact of the Eskimos having a word for copper before 1000 A. D. would not signify a copper culture or that they knew of copper deposits and the art of hammering out the metal. It cannot therefore vitiate the argument that a real knowledge of copper was acquired by the Eskimos only four or five hundred years ago, when it arose in the region around Coronation Gulf.

15: Jenness--548-549 (No date) 1923 Copper Eskimo
116, 174, 325

"THE USE OF COPPER AMONG THE NORTHERN INDIANS

Let us turn now to the evidence on the Indian side. We know that a knowledge of copper was widespread among the Indians in very early times. The deposits around Lake Superior, for example, were worked before the Europeans settled in America. In the north the Yellow-knife Indians of Great Bear and Great Slave Lakes received their name from the extensive use they made of this metal, and from Hearne's testimony we gather that it was not a recent acquisition among them. I may quote his words in extenso:

'Before Churchill River was settled by the Hudson's Bay Company, which was not more than fifty years previous to this journey being undertaken [i. e. after 1721] the Northern Indians [Chipewyans] had no other metal but copper among them, except a small quantity of iron-work, which a party of them who visited York Fort about the year one thousand seven hundred and thirteen, or one thousand seven hundred and fourteen, purchased; and a few pieces of old iron found at Churchill River, which had undoubtedly been left there by Captain Monk. This being the case, numbers of them from all quarters used every Summer to resort to these hills [the Copper Mountains near the Coppermine River[in search of copper; of which [549] they made hatchets, ice-chissels,] bayonets, knives, awls, arrowheads, &c. The many paths that had been beaten by the Indians on these occasions, and which are yet, in many places, very perfect, especially

on the dry ridges and hills, is surprising; in the vallies and marshy grounds, however, they are mostly grown over with herbage, so as not to be discerned.

'The Copper Indians [Yellow-knives] set a great value on their native metal even to this day; and prefer it to iron, for almost every use except that of a hatchet, a knife, and an awl: for these three necessary implements, copper makes but a very poor substitute. When they exchange copper for iron-work with our trading Northern Indians, which is but seldom, the standard is an ice-chissel of copper for an ice-chissel of iron. . . .' (5)

We should not take too seriously Hearne's remarks about the tracks worn by the Indians on their visits to the Copper Mountains. Probably they were nothing but the trails of caribou or musk oxen, which often travel along well-defined paths. But his statement does prove that the northern Indians, including the Yellow-knives, Dog-ribs, and Chipewyans, had a full-fledged copper culture in the seventeenth century, when the Eskimos to the north of them seem not to have fully emerged from the stone age. Moreover, from numerous passages in his journal it is clear that the two races frequently came into contact with each other at this period, and even though such contact may always have meant hostilities, this would not prevent a knowledge of copper from passing from one to the other. We learn also that, although the lower reaches of the Coppermine River were very remote from the usual hunting grounds of the Chipewyan Indians who visited Fort Churchill, so well known was the route that these Indians did

not hesitate to make the long and arduous journey of nearly a thousand miles in order to obtain their own supply of copper from the 'mines,' rather than to rely on their trade with the Yellow-knives. Hearne gives the Chipewyan legend concerning the discovery of these mines, and a slightly different version of the same legend was obtained fifty years later by Sir John Franklin. Although too long to quote here in full, it has an important bearing on our inquiry inasmuch as it ascribes the discovery of these copper deposits near the Coppermine River not to an outside people but to the Chipewyans themselves and implies that they were acquainted with the metal even before this discovery. We cannot tell how long it would take for such a myth to arise, but it certainly does not favor any recent introduction of copper from an outside source."

15: Jenness--549-550 (No date) 1923 Copper Eskimo
116, 174

"ESKIMO COPPER CULTURE DERIVED FROM INDIANS

Our investigation has now brought to light two facts. First, the limited distribution of copper among the Eskimos, its absence or scarcity in the older settlements, and the use of stone for arrowheads in Coronation Gulf, the center of the Eskimo copper culture, down to the end of the eighteenth century, all indicate that the extensive use of copper among the Eskimos [550] does not date back more than four or five centuries. Secondly, the wide-spread copper culture of the northern Indians in the seventeenth century was many generations old even at that period; moreover, the Indians throughout a great part of North America were making extensive use of copper long before the arrival of Europeans. In the light of all these facts only one conclusion seems possible: the Indians were the first to learn the use of copper, and the Eskimos borrowed it from the Indians."

15: Jenness--550-551 (No date) 1923 Copper Eskimo
116, 174

"MIGRATION OF THE COPPER ESKIMOS PART OF A GREATER MIGRATION FROM INLAND

I have tried to prove that the Copper Eskimos came about five centuries ago from the east to Coronation Gulf and in that region, through contact with the Indians, acquired the copper culture which marks them off from other Eskimos. Can we gather any clues as to their earlier history?

The subject requires more investigation than I have yet been able to bestow on it. But I have already pointed out a few of the many features that tend to unify all the Eskimo tribes from the Kazan River northward to Boothia Peninsula and Coronation Gulf. The southern tribes, those on the Kazan, Thelon, and Backs Rivers, are inland dwellers, living on fish and caribou and musk oxen. They seldom visit the coast except for trade and, if they know any methods of sealing at all, know only the maupok and utok methods, i. e. the watching over the seal hole in the ice and the stealthy creeping upon a seal that lies on the surface of the ice outside its hole. Even the Eskimo tribes along the north coast from Dolphin and Union Strait to Boothia Peninsula, who spend more than half the year either on the seashore or on the ice near by, hunting the seals at their breathing holes, are not really a littoral people in the sense that the Eskimos east and west of them are littoral. For the sea is useful to them only when it is frozen solid like the land. Open water, a blessing to the littoral Eskimos, is a hindrance to these northern tribes, since they possess no large skin boats and sealing from the kayak is an

unknown art. Their summer life is the same as that of the inland Eskimos, and their winter life differs from it only in that they hunt seals through holes in the sea ice and use seal blubber for fuel, instead of fishing through the lake ice in the same manner, hunting caribou and musk oxen, and using caribou tallow in the stone lamps. Both groups use the long narrow type of kayak suitable only for lakes and rivers, wear clothing cut after the same general pattern, and have practically the same dialect. For these and other reasons I am inclined to believe that the Copper and Netchilik Eskimos migrated to the coast from inland only a few centuries before the appearance of the Copper Eskimos in Coronation Gulf. This would imply a general movement from inland about seven or eight centuries ago, both to the northern coast line and to the western shores of Hudson Bay; and it is noticeable that in both these regions the same extreme emphasis is laid on the distinction between [551] sea and land products, a distinction that is much less pronounced in other Eskimo tribes. The natives on the shores of Hudson Bay, who have a more strictly littoral culture, may have been influenced by older littoral tribes in Baffin Island, who have hardly affected the Netchilik and Copper Eskimos owing to the greater difficulties of communication.

The primary cause for this migration, if my theory holds good, was pressure from expanding Indian tribes. Not all the inland Eskimos, however, were driven out to the coast. A considerable number were congregated in the barren lands north of the Thelon

River, whence many of them returned south as soon as the pressure was removed. Thus we learn from Hearne's narrative that the basin of the Kazan River was Chipewyan territory in his day; but shortly after his journey a rapid decline set in among the northern Indians, their hunting grounds became more restricted, and the Eskimos gained (regained?) control of the Kazan basin. Tyrrell, (6) in 1893 and 1894, discovered between five and six hundred Eskimos along this river, all inland natives who only visited the coast for trade. Almost certainly they had not abandoned the coast for an inland life but had migrated south from the barren lands between Backs River and Boothia Peninsula.

If later investigations confirm this theory of a migration of inland Eskimos to the coast some time after 1000 A.D., it will pave the way for still larger issues. The Eskimos of Southampton Island in Hudson Bay, for example, whose primitiveness has remained an unexplained enigma, may perhaps be interpreted as a small first wave that moved out farther than the rest and became isolated, thereby escaping the cultural

"6. J.B. Tyrrell: Report on the Doobaunt, Kazan and Ferguson Rivers, Ann. Rept. Geol. Survey of Canada, Vol. 9 (N.S.), 1896, pp. I F-218 F; reference on p. 167 F.

influences that affected the rest of Hudson Bay. The theory will involve also the perhaps synchronous migrations from Baffin Island into Greenland and raise the problem as to whether the same causes may not have operated in this movement also, although here it mainly or exclusively affected coastal tribes. Finally there would remain the question of the connection between the western and the eastern coastal Eskimos and of both of these with the inland tribes.

In regard to the often-discussed problem of the ultimate origin of the Eskimos and their peculiar civilization I have no opinion to offer. The theories outlined above deal only with the history of a small portion of the race during the last thousand years. If they concern an area which, in the opinion of some of the ablest ethnologists, saw the transformation of an original inland, proto-Eskimo population into the littoral Eskimos that we know today, my theories need not be considered as running counter to that opinion, because such a transformation, if it ever did take place, must have occurred many hundreds of years before the Christian era. But a permanent solution of the entire Eskimo problem can hardly be satisfactorily attempted until more excavation has been done among the ancient ruins of Canada and Alaska and additional studies have been made of the living Eskimos in parts of both these countries."

[P.17, A]

143 pears to be a cline from northwest to southeast, MS being replaced by Ns:

Population	MS	Ms	NS	Ns
Copper	0.1719	0.8703	0.0000	0.1578
West Hudson Bay	0.1554	0.6090	0.0000	0.2386
Baffin Island	0.1200	0.5943	0.0000	0.2857
Northeast Hudson Bay	0.1337	0.5646	0.0000	0.3017
Southeast Hudson Bay	0.0619	0.5662	0.0000	0.3719

114 The meaning of these differences is un-
143 certain. The ABO findings taken alone
144 could be used as evidence supporting the argument that the Eskimo living farthest south in Hudson Bay have a large admixture of Indian blood; indeed to the absurdity that they are pure blood Indians. But both the Duffy and the MNSs data destroy this argument. In point of fact so far as the MNSs data go the closer geographically the Eskimo come to the modern Indians the farther they recede from them genetically. It would seem to us that, as more complete blood groups and other genetic data accumulate, one can but conclude that there is no close genetic relationship between the Eskimo and the Indians of today. They may perhaps stem from a common stock, but if so the primary branching occurred a long, long time ago, while there has been little grafting since. Equally in our own studies there is surprisingly little evidence for replacement of Eskimo genes by genes of Whites. Such are present certainly, but not in such numbers in the populations we have studied as seriously to disturb the inherent Eskimo gene frequencies. If neither of these is the explanation of the variations then that explanation must lie within the Eskimo population itself.

114 The archaeologists have painstakingly de-
143 fined at least two Eskimo cultures in the
144 eastern Arctic, the Dorset and the Thule.
174 It would seem to us not unlikely that the people of these cultures differed genetically, perhaps as much as the Indians of today do from the Eskimo, and that there

[P. 17, B]

may well be in the present Eskimo population a Dorset residuum which is genetically recognizable. It is hardly to be expected that such recognition will depend upon the presence of a strange gene in one population that is absent from the other, but rather upon differences of frequencies of genes already known or to be discovered, differences such as are indicated in the above data. One can as yet draw no firm conclusions, but certainly the indications are enough to make further genetic studies, even more complete than the present one, worth-while.

SUMMARY

Blood group gene frequencies were determined based on samples from 320 Copper Eskimo as follows: *O*, 0.6770; A_1 0.2914; *B*, 0.0316; *M*, 0.8422; *N*, 0.1578; *S*, 0.1827; *s*, 0.8173; *MS*, 0.1719; *Ms*, 0.6703, *NS*, 0.0000, *Ns*, 0.1578; P_1, 0.1842, P_2, 0.8158; *CDe*(±*Cde*), 0.4985; *cDE*(±*cdE*), 0.4906; *cDe*(±cde), 0.0109; Fy^a, 0.7500; Fy^b, 0.2500. The following phenotypes were found to have a frequency of 1.00; Lu (a − b +), K − k + Kp(a − b +), Le(a−) and Sec. The following antigens were not present in the population tested: He, M^g, Mi^a, Vw, C^w, V, Di^a, Be^a, By^a, and Wr^a. Differences between this population and other Eskimo populations studied were noted in the ABO, MNSs and Duffy systems.

ACKNOWLEDGMENTS

We are happy to acknowledge the continued support of the National Museum of Canada through Dr. J. Rousseau. For gifts of rare anti-sera we are indebted and grateful to Drs. E. R. Giblett, F. H. Allen, Jr., J. Mohn, T. Greenwalt, M. Shapira, M. M. Pickles, I. Dunsford, R. T. Simmons, P. Levine and I. Davidsohn. For making our stay at Coppermine comfortable and pleasant we are grateful to the Hudson's Bay Company and Factor C. Jones and Mr. Smith; and for helping us about our business, Cpl. D. McDougall and Mrs. McDougall, Father LaPointe and the Rev. Cannon Sperry.

ADDENDUM

Since this article was written we have obtained additional genealogical information from Mr. Wm. Joss, Manager of the

321 Greenland implement seems to have been made of antler, the heavy base at right
412 angles to the prong forming the hammer head.[1] For Mackenzie delta and Alaska
our information is less certain, but some bone-headed mallets figured by
372 Murdoch,[2] were probably used for pounding blubber; they are mounted on
171 wooden handles like the ordinary stone-headed mallet from this region. The
Museum possesses a stone mallet (IX.F.323), unmounted, from Barrow that
was said to have been used for pounding blubber.

321 The blubber pounder made of musk-ox horn is evidently a special product
of the central regions, where alone, except for the uninhabited northern archi-
412 pelago and North Greenland, the musk-ox has persisted down to the present
372 day. The convenient shape and weight of the natural horn doubtless suggested
174 its use for this purpose; and the grooving of the handle for the fingers was
[171] already practised with certain other tools, such as the marline-spike for the
back-lashings of the bow.

415
321

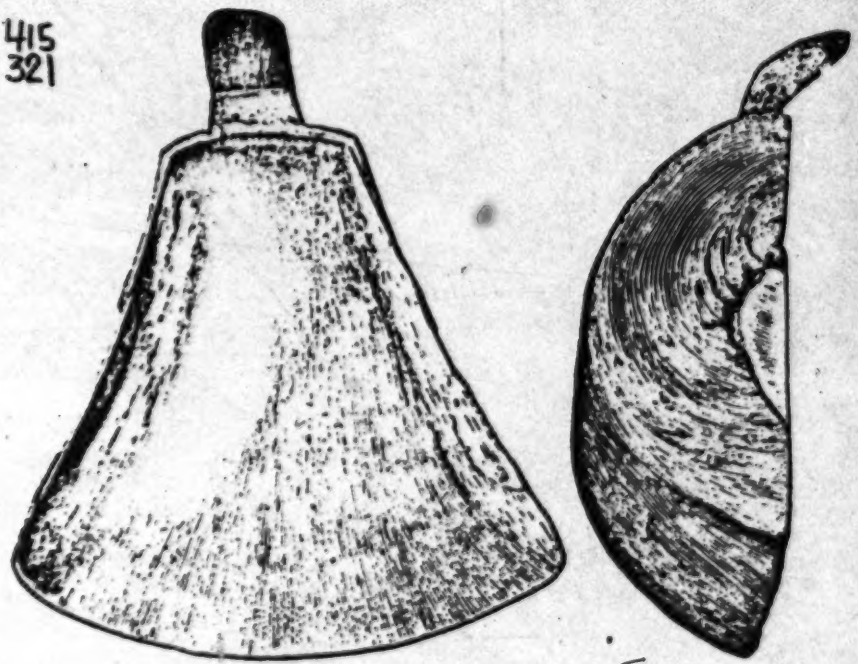

Figure 64. Drinking ladle, of musk-ox horn. IV.D.1480. Approx. 1/2.

LADLES AND DRINKING HORNS

Drinking ladles of musk-ox horn were indispensable to every household, but never carried by hunters in the field. Their usual shape is illustrated in Figure 64. In size they varied from children's toys 4 or 5 cm. long (often made of

[113]

[1] Birket-Smith, Kaj.: Ethnography of the Egedesminde District; Medd. om. Grøn., vol. LXVI, fig. 14.
[2] Murdoch, John: Ninth Annual Report of the Bureau of American Ethnology; Smith. Inst., pp. [illegible].

The method of using the whittling knife in Coronation Gulf and westward differed from the Greenland method described by Porsild.[1] The Copper Eskimo held the knife low down with the hand directed inward, and the handle resting along the inner side of the forearm so that it fitted into the curve of the elbow. With the instrument thus pivoted on the elbow the forearm moved as one unit and the wrist remained perfectly still. Smaller whittling knives, even though their handles did not reach the elbow, were held in the same manner.

Grooving Tool. The Copper Eskimo had a tool for cutting grooves in bone, antler, and horn similar in shape to the tool used by other Eskimo tribes. The blade, which was nicked at the end or else bore a sharp, pointed projection, was mounted in an antler handle of no particular shape. Sometimes the handle was split for the insertion of the blade, sometimes the blade was simply driven in with a stone, and riveted or not according to the owner's fancy. Figure 115 shows three specimens of the tool, all from Coronation Gulf; but Figure 115c is really a combination tool, because its handle served also as an arrow straightener. All three specimens have iron blades, as indeed did every grooving tool I saw in the country. Whether copper or stone preceded iron in this case I did not discover.

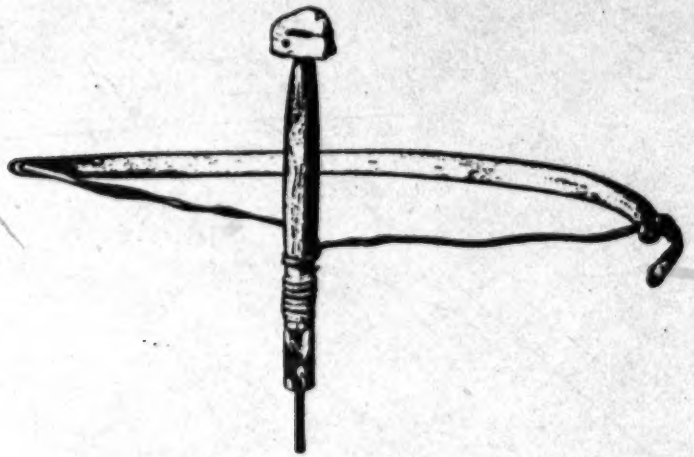

Figure 116. Drilling set. IV.D.708. 1/3.

Drilling Sets. The Copper Eskimo used the three-piece drilling set found among other Eskimo tribes (Figure 116). The bow was of bone, generally the rib of a musk-ox or caribou; a hole was drilled in each end for the attachment of the sealskin cord. The stem or spindle was nearly always of wood, though bone was used occasionally and ivory when it was procurable. To prevent the wood from splitting, a bead of bone, antler, or musk-ox horn was added to it, either as a cap or by splicing. All the drills I saw had points of iron, which had long been current in very small quantities; copper perhaps was used earlier, and stone, although the natives seemed to have no recollection of the stone drill points.

[1] Porsild, M. P.: Studies on the Material Culture of the Eskimo in West Greenland; Meddelelser om Grønland, vol. LI, p. 186.

28: Jenness E-5 (1914-1916) 1946
ND8 Copper Eskimo ND8

per, or iron. They claimed that their forefathers had never used points of stone and ascribed such specimens as they picked up in their country. (See Figure 155) to a still earlier people. Thus, it would seem that in the short space of 100 years stone points had passed out of both use and memory.

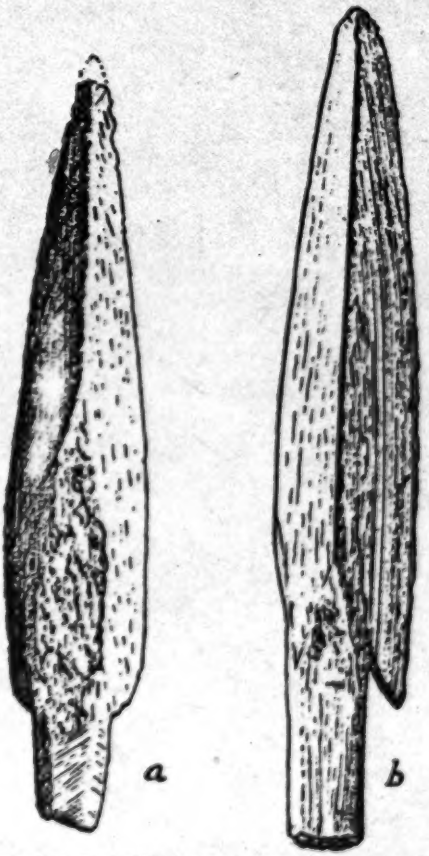

Figure 153. Two rubbed stone points picked up on the surface of the ground in Coronation Gulf. IV.D.607, 1627. 1/1.

Figure 156. Arrow head, with rubbed slate point, found on Victoria Island. IV.D.1819. Appros. 1/2.

In 1939, Mr. Lincoln Washburn presented to the National Museum of Canada two old slate-pointed arrow heads that had been picked up on Victoria Island.[1] The points were wedged without rivets into rather flat antler foreshafts, one being at right angles to the axis of the shaft, the other parallel with it. Each shaft bore a single barb and terminated in a sharp tang that seemed to lack knobs, but one shaft had been made from two pieces of antler deftly

[1] He added the information that near Holman Island, at the entrance to Prince Albert Sound, is an outcrop of a shale rock that the natives assert was once used for arrow points and knife blades.

411 scarfed and spliced together with three copper rivets (Figure 156). Both were
324 deeply encrusted with lichens, and were evidently of considerable antiquity.
321 Probably they were made by ancestors of the present-day Copper Eskimo. On
the other hand, it is not at all impossible that they are arrow heads of the
172 earlier "Thule"-culture inhabitants who have left other remains in the region.
The use of copper rivets does not rule out this possibility, because copper-bladed women's knives with typical "Thule" handles have been recovered from an old stone house on Victoria Island and from a stone grave on the neighbouring Read Island, along with harpoon heads and other objects of typical Thule (North Alaskan) types. There are good grounds for believing, therefore, that
[325] the ancient Thule population itself used the local deposits of copper and passed
[174] on its knowledge to the ancestors of the present-day Copper Eskimo when the latter migrated into the area.[1]

411 In 1914 arrows with long antler points that fitted directly into the wooden
321 shafts were fairly common; some had no barbs, others one or more along one
325 side. Much more common, however, were arrows with separate blades of bone, copper, or iron that riveted into antler foreshafts, or were provided with long shanks that took the place of foreshafts. Points of bone were rare; about 65 per cent were of copper and the remainder of iron, hammered into the same shapes as the copper ones. These shapes, and also the methods of splicing the wooden shafts when made of two or more pieces, have been rather fully illustrated by Stefansson.[2] Individuals may have preferred one type of point to another for certain game, but so far as I could discover they used all types more or less indiscriminately.

411 The Copper Eskimo used the Mediterranean release, holding the bow
237 almost horizontal. They generally feathered their arrows with goose, loon, eider duck, or snowy owl quills, but did not disdain quills from other birds. Normally, two feathers only were used on each arrow, but occasionally three, for no special reason that I could discover. The hunter cut off on his trimming board all the barbs along one side of the feather, smoothed the rough quill with his knife, grooved the arrow shaft with the special tool for that purpose (or, if he lacked this tool, split it slightly with his knife), and lashed the two ends of the feather in the grooves with caribou sinew. This was the usual way of feathering. Occasionally, however, he merely trimmed the barbs a little on both sides and fastened the feather flat against the shaft. There was also a third method, in which two half feathers, i.e., feathers from which the barbs on one side had been removed, were lashed around the end of the shaft spirally, end to end, and the barbs spread fanwise. I saw a man feather an arrow for his young stepson in this way and was told that it was a rare method, never employed on arrows intended for serious use.

Bow-case, Quiver, and Tool Bag

411 The bow-case (Figure 157), which was made of sealskin to keep out water,
415 was shaped to the form of the weapon; one end was closed, the other left open
281 for some distance down its curved edge to permit the insertion of the bow. To close the opening when the bow was in place there was a short cord of plaited sinew whose loose end was tucked under the lashing, leaving the tip protruding so that it could be unfastened at a single jerk. A quiver with or without a cap was sewn or buttoned to the straight edge of the case; and a tool bag was also sewn to the case in such a way that the quiver, when carried on the back, lay on top of it and prevented its contents from falling out. Often, too, there was a sheath

[TEXT CONTINUED ON PAGE 128]

[1] Mathiassen found a little copper in the old Thule site at Naujan, on the south shore of Hudson Bay (Reports of the Fifth Thule Expedition, vol. IV, pt. 1, pp. 91, 93 (Copenhagen, 1927)); and Graham Rowley discovered a small copper knife in a Dorset culture site near Ivujivik, some 300 miles further north. So far as we know today, this copper could have come only from the Coronation Gulf region.

[2] Stefansson, V.: Anth. Papers, Am. Mus. Nat. Hist., vol. XIV, figs. 19-20 (1919).

[113]

29: Jenness E-5 (1914-1916) 1959
ND8 Copper Eskimo ND8

Coronation Gulf but a few centuries before, and that their land was once peopled by other tribes of Eskimos who have passed mysteriously from the scene.

Whence came, then, the forefathers of all my Eskimo friends? That question, too, we can now answer with reasonable certainty. Eight or nine hundred years ago, when the Normans were gaining a foothold in England and hardy Icelandic seamen were foundling colonies in the newly discovered "Green Land," numerous tribes of Eskimos roamed the wide expanse of the so-called Barren Lands between Hudson Bay and those two immense expanses of fresh water, Great Bear and Great Slave Lakes. There they hunted caribou and musk-oxen, and in seasons of scarcity trapped and speared fish in the lakes and rivers; but seldom or never did they go down to the sea to hunt the great sea mammals, or to lay in stores of blubber to banish the cold from their huts. Something, then, set these tribes in motion—what, we do not know, unless it was the pressure of Indian tribes pushing up from the southward. The movement gathered force as it proceeded, like a boulder on a hill-side, and the tribes expanded in two directions. Some, going eastward, occupied the shores of Hudson Bay and Baffin Island, and sent a contingent into Greenland; others went northward to the Arctic coast, where another contingent turned west to Coronation Gulf. Gradually the impulse to movement died away; the

29: Jenness E-5 (1914-1916) 1959
ND8 Copper Eskimo ND8

various tribes settled down in their new homes and lost all memory of their motherland. Only a tell-tale remnant, numbering today about six hundred souls, lingered behind on the Barren Lands, as though it preferred the vicissitudes of the old mode of life, on the old familiar hunting-grounds, to the alluring but often deceitful promises of the new.